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Human - animal interaction and the benefits to mental health: A phenomenological study

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Jasmin Jau (Bachelor of Social Science)

This thesis is presented for the degree of Bachelor of Social Work [Honours]

School of Social Work

Edith Cowan University

2014

Edith Cowan University

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Acknowledgments

First and foremost I would like to express my sincere thanks to the people who have participated in the interviews. I would like to thank you for taking the time to participate in this study and I feel honoured to have been entrusted with your stories and experiences.

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Definitions and use of language

Animal assisted interventions

"Any intervention that intentionally incorporates animals as part of a therapeutic or ameliorative[1] process or milieu[2]" (Kruger & Serpell, 2006, p. 25).

Animal programs:

This refers to the programs that the participants of this study were involved in.

Human animal interaction

Currently there seems to be no commonly agreed on definition of human animal interactions (Lunghofer, 2011). For the purpose of this study human animal interactions include: caring for animals; playing with animals; riding horses; helping other people interact with an animal; feeding animals; and, touching animals.

Mental disorder or illness:

For the purpose of this thesis the terms mental illness and mental disorder are used interchangeably. Mental disorder is defined in the *International Classification of Disease* (ICD-10) as "a clinically recognizable set of symptoms or behaviour associated in most cases with distress and with interference with personal functions" (WHO, 2012, p.11). Use of these terms is not to suggest that mental illness or disorder is strictly a pathology of the person, rather, these terms are used as they are consistent with the literature and professional terminology adopted in this field. The approach adopted in this thesis represents a criticism of the medicalisation of mental illness, insofar as it argues that responses to mental illness should consider social and environmental factors, such as those offered by interactions with animals.

[1] Ameliorate – make something that is unsatisfactory better (Oxford Dictionaries, 2014a)
[2] Milieu – environment (Oxford Dictionaries, 2014b)

Mental health:

'A state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.' (World Health Organisation [WHO], 2007).

Acronyms

AASW – Australian Association of Social Workers

WHO – World Health Organisation

Abstract

The prevalence of mental illness is a major concern in Australia and worldwide. It is one of the leading causes of disability in Australia and it is estimated that globally one in four people will experience a mental illness at some point in their life. One of the lesser known therapies and activities in the mental health field are animal assisted interventions that incorporate animals as part of the therapeutic or ameliorative process. Although emerging research literature shows that interaction with animals has positive effects on mental health and wellbeing, it is not clearly understood how and why there are benefits. Accordingly, the research question for this study is:

- In what ways can human-animal interactions benefit mental health?

Guided by a phenomenological methodology, in-depth interviews were conducted with three participants who regularly interact with animals and identify as having or had depression in the last two years. The aim of the study was to explore participant's experiences of the benefits of interaction with animals to mental health and to show how and where human animal interaction can benefit mental health. This study has showed how interaction with animals has direct and indirect benefits to mental health and wellbeing and argues that animals can play an important role in improving human mental health.

The following eight themes were identified: company and comfort, social interaction, social skills and belonging, structure and balance, helping, learning and life skills, sense of achievement, fun and enjoyment, and passionate caring. The significance of this study for social work are that the results lend weight to understanding the ways in which animals can benefit mental health. Implications for practice suggest that involving clients in the care of animals can foster social interaction and the development of social skills and by extension improve mental health and wellbeing. Keeping animals on the premises of residential programs and enabling clients to interact with them could provide clients with comfort and company. Furthermore, clients who express an interest in animals could be encouraged to volunteer with animals as a way to manage their mental health, gain confidence and learn new skills.

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Chapter 1 - Introduction and background

I remember it was probably within the first month or so of being here - I just remember one day when I was standing in a room and I had a young magpie sitting on the table in front of me just going 'mehmeh' at me and I was shoving mince in its mouth and I just thought to myself this is - this is so good! This is just the life. This is where I wanna be! I'm so happy being here! (Anna)

Introduction

This chapter will introduce the topic of this study: human-animal interactions and mental health. The chapter will describe the extent of mental health problems in Australia and worldwide as the background and context to this study. It is within this context that animal assisted interventions are situated, and they will be explained as alternative and complementary treatments to promote mental health and wellbeing. Accordingly, the chapter will consider the theoretical beginnings of the use of animals in the ameliorative process of mental health and from this will locate and outline the research aim and guiding question. The significance of this study lies in its approach to exploring the phenomenology of the interaction between humans and animals, and this is discussed. The chapter concludes with an overview of the organisation of this thesis.

Background and context

Mental health problems are a major concern in Australia and worldwide. It was estimated in the *National Survey of Mental Health and Wellbeing* (Australian Bureau of Statistics [ABS], 2007) that 20 per cent (1 in 5) of the population aged between 16-85 years had a mental health condition in the year prior to the survey, and 45 per cent had had a mental illness at some point in their life. Mental illness, along with cancer, cardiovascular disease, and nervous system and sense disorder is a leading cause of disability in Australia (Australian Institute of Health and Welfare

[AIHW], 2012). The global picture is much the same. It is estimated that one in four people will suffer a mental illness in their lifetime. The total burden of disease due to mental illness adds up to 8.8 per cent in low-income countries and 16.6 per cent in middle-income countries (World Health Organisation [WHO], 2010). Some 121 million people worldwide suffer from depression, with the highest prevalence in some of the wealthiest countries (Bromet et al., 2011).

Within such a context, many different programs and therapies that aim to prevent or treat mental illness are developed and implemented. A lesser known of these are animal assisted interventions. Animal assisted interventions is an umbrella term that has been defined by Kruger and Serpell as "any intervention that intentionally incorporates animals as part of a therapeutic or ameliorative process or milieu" (2006, p. 25). Pet Partners (2012a), formerly known as Delta Society, is one of the largest not-for-profit human services organisations dedicated to enhancing people's health and wellbeing through positive interaction with animals. Pet Partners (2012b) suggest that a differentiation should be made between animal assisted therapy and animal assisted activities. Animal assisted therapy is an intervention with a specific purpose and goals and is delivered by a professional, and the process is documented and evaluated. Animal assisted activities on the other hand have no specific treatment goals, are often provided by volunteers, and the process and outcomes are not evaluated (Pet Partners, 2012b)[3]. The focus of this study is not on animal assisted therapy or activities in particular, but human animal interaction in general. Examples of human animal interaction include caring for animals, riding horses, helping other people interact with an animal, playing with animals, feeding animals and touching animals.

Theoretical beginnings

Many studies (Friedmann et al., 1980; Trotter, Chandler, Goodwin-Bond, & Casey, 2008; Pedersen, Ihlebæk, & Kirkevold, 2012; Allen, Blascovic, & Mendes, 2002) have shown that there are benefits of human animal interaction to mental health; yet,

[3] For examples of animal assisted activities and intervention programs refer to appendix 7.

it is not clearly understood how and why, and there is currently no unified or empirically supported theoretical framework to explain this phenomena (Kruger & Serpell, 2006). However, different theoretical traditions are beginning to emerge. These include the biophilia thesis, the social support hypothesis, and the link to attachment theory (Kruger & Serpell, 2006). The biophilia thesis proposes that paying attention to the behaviour of animals' is evolutionary as it enhanced human survival by indicating safety or danger. Hence, watching a peacefully grazing horse or a cat playing with her kittens has a de-stressing and calming effect with an evolutionary basis (Wilson, 1984). The social support hypothesis suggests that companion animals are a social support themselves; they reduce loneliness as they are always available, are non-judgemental and love their owners unconditionally (Sable, 1995). Moreover, animals also encourage and facilitate conversations and social interactions among people (McNicolas & Collis, 2006). Lastly, benefits to mental wellbeing have been linked with other developments in attachment theory. It is believed that people can form a strong attachment to an animal and perceive it as a secure base and that animals can also function as transitional objects[4] (Zilach-Mano, Mikulincer, & Shaver, 2011).

The theories discussed above contain different assumptions and focus their analysis in specific ways. It is not the intention of this research to explore the evolutionary aspects of human animal interaction, nor does it have attachment as its theoretical focus. This research focuses on the phenomenon of the interaction between humans and animals, but augments this with an expanded notion of the World Health Organisation's [WHO] (2007) definition of mental health. In this sense, the conceptualisation of the phenomenon being studied is arguably framed within a social context understanding of mental health, and it is in this sense that the study is located within the social support theoretical tradition. At the same time, the study seeks to understand the phenomenon of human animal interaction and its benefit to mental health from the subjective vantage point of the participants themselves. As such, the research aims and question seek to explore this in an open ended way.

[4] A transitional object provides comfort and as in this case can take on a mediating role between the person and the outside world (Zilach-Mano et al., 2011).

Research aims and question

From the outset, the aim of the study was to explore participant's experiences of the benefits of interaction with animals to their mental health and to improve understanding by showing more clearly how and where human animal interactions can benefit mental health. The research question for this study is:

- In what ways can human animal interactions benefit mental health?

The approach to this study is qualitative, focusing on the phenomenon and interviewing participants to collect the data. A phenomenological methodology has been chosen as the research design used to answer this question. Furthermore, the World Health Organisation's [WHO] (2007) definition of mental health has been adapted into the research framework to guide the study and the phenomenological analysis. This is discussed in chapter three when I detail the elements of the research design. Adopting this framework to guide the study will help frame the way this study will explore the phenomenon and take into account possible benefits ranging from psychological to social. The study seeks to explore the phenomenon studied from a 'person in environment' perspective, which is a principal element of social work knowledge and practice (Kemp, Whittaker, & Tracy, 1997). Furthermore, the research question and purpose of this study is relevant to the social work profession which is committed to work with and support people to achieve the best possible levels of personal and social wellbeing (AASW, 2010).

Significance

This study will add to the knowledge on the benefits of human animal interaction to mental health and help fortify current hypotheses. Furthermore, as the review of the literature in chapter two will outline, although research has shown that there are benefits of interaction with animals to mental health, not much is known about how exactly benefits are gained. This study is significant to practice because if we can understand more clearly the *ways* in which interaction with animals can benefit mental health, then this will help the improvement and development of animal

assisted interventions and may show new ways in which interaction with animals could be used to support people in their recovery from mental illness in general, and depression in particular.

The study benefits providers of programs that offer animal assisted interventions, social workers and other mental health practitioners, clients who access animal assisted intervention programs and anyone else who might be interested in the topic. Lastly, the study is significant as it makes a contribution to a field that is highly relevant to social work. However, the research knowledge at this point in time is largely the domain of the disciplines of psychology, psychiatry and zoology, and consequently, much of the existing research is narrowly concerned with the psychology of the person, as opposed to a broader social and interactive perspective. Hence, this research will be among the first to approach the study of human animal research from a social work point of view by clearly incorporating a more social and ecological notion of mental health and wellbeing as articulated by the World Health Organisation.

Organisation of the thesis

Chapter one has introduced the topic and background. Chapter two will review the literature relevant for this study. The literature review will briefly cover early and ground-breaking studies. Furthermore, research that explored the use of animals in therapeutic interventions as well as research around farm animals and pet ownership will be presented. This review will also consider studies that have shown limitations of benefits of interaction with animals to health and wellbeing. Chapter three will cover the research design and the methods. It will discuss ethical considerations and risks to participants and outline how these risks were minimised. Chapter four will present the findings of the study by giving a description of each of the eight themes that were identified. Examples of quotes from the transcripts will be included and links will be made to relevant literature to ground the analysis in further research. Chapter five will present a summary of findings. It will discuss implications for practice, outline the limitations and strengths of this study, and it will make recommendations for further research.

Chapter 2 – Review of literature

There're cows and sheep, chooks and two dogs; one's a puppy so I got to watch that grow, the puppy growing up, and that was really nice. (Isabella)

Introduction

The previous chapter introduced the topic and the aims and question of this research. The purpose of this chapter is to review the literature relevant to this study. This research fits within the growing field of Anthrozoology. Anthrozoology is the study of human animal interaction, which has a key focus on the positive effects of interaction for either side—human or animal (Mills, 2010). It is a field that overlaps with various disciplines such as psychology, veterinary medicine, social work, medicine and zoology (Mills, 2010). As far back as the 18th century animals were kept on the grounds of mental institutions in England for their socialising and calming effect on the patients. This trend increased during the 19th century and patients were encouraged to interact with, feed and care for the animals (Serpell, 2006). This literature review will briefly cover early and ground-breaking studies in this area. Furthermore, research exploring the benefits of using animals in therapeutic interventions will be presented. Moreover, studies exploring interaction with animals in the context of working with farm animals and pet ownership will be reviewed.

Research into animals and human wellbeing

Although animals have a long history in the treatment of people with mental illness, particularly in institutionalised contexts, with the dawn of scientific medicine in the early 20th century, animals were mostly removed from institutional and hospital settings (Serpell, 2006). In the 1980s though, Friedmann et al.'s (1980) ground-breaking longitudinal study found that patients with coronary disease who owned a pet had one third the mortality rate a year after discharge than patients that did not own a pet. This brought animal interaction and the benefits to health back into focus

and gave some legitimate status to the use of animals in health research and practice. It was suggested that as coronary heart disease is a stress related illness, the reduced mortality rate was due to the effect of human animal interaction on psychological risk factors (Patronek & Glickman, 1993).

Therapeutic interventions

Since Friedman's study, many other studies have shown that there are benefits of human animal interaction to physical and mental health. For example, a study by Braun, Stangler, Narveson, and Pettingell (2009) showed that children in acute care paediatric settings had four times the reduction in pain after engaging in animal assisted intervention compared with the control group that quietly relaxed for 15 minutes. Furthermore, an equine assisted learning program for young people in a residential solvent abuse treatment program in Canada was found to provide a culturally relevant space for the young people and to be beneficial to their healing (Dell et al., 2011). Relatedly, a comparative study in the United States found that an equine assisted counselling program for teenagers at risk was effective and even superior to a classroom based program (Trotter, Chandler, Goodwin-Bond, & Casey, 2008).

Other studies have yielded similar results. In a study conducted in the United States, clients that participated in equine assisted experiential therapy showed significant and stable reductions in overall psychological distress, a reduction of symptoms, and enhanced psychological wellbeing (Klontz, Biven, & Leinart, 2007). Moreover, in the Morretti et al., (2011) study, a group of elderly patients with a mental illness that attended an animal assisted intervention program showed increased improvement in the areas of cognitive function, mood and perceived quality of life compared to the control group. Likewise, a meta-analysis found empirical support for the effectiveness of interventions using dogs to treat depression (Souter & Miller, 2007).

A study by Yorke, Adams, and Coady (2008) showed that the bond participants had with their horses contributed substantially to their recovery from physical and

psychological trauma and a correlation was found between good equine-human relationships and good therapist-client relationships. Another study suggested that dogs may be helpful psychologically as well as socially for contemporary war veterans who had been diagnosed with post-traumatic stress disorder (Taylor, Edwards, & Pooley, 2013).

Human animal interactions have also been shown to improve social behaviours in children with autism (O'Haire, McKenzie, Beck, & Slaughter, 2013). Further, parents and guardians of children who have autism spectrum disorder and who have an assistance dog felt that their child was safer from dangers from the environment and they also perceived that people in public acted more respectfully and responsibly towards the child. Parents perceived the assistance dog as a valuable intervention that helped them feel more competent about managing their children (Burgoyne et al., 2014).

Farm animals and pet ownership

It is not just in the context of therapeutic interventions that the contribution that animals can make to mental health and wellbeing has been noticed. Working with farm animals has been shown to reduce anxiety and depression and increase mood, self-esteem and coping ability in psychiatric patients (Berget, Ekeberg, Pedersen, & Braastad, 2011). Another study in Norway indicated that the experience of working with animals on a dairy farm had a positive impact on participants that had been diagnosed with clinical depression (Pedersen, Ihlebæk, & Kirkevold, 2012). Several positive effects were identified including: the experience of the animal's warmth, calmness and physical contact, the experience of an ordinary work life, the feeling of being appreciated by both the animals and the farmer, and being distracted from their illness (Pedersen et al., 2012).

Along with animal therapy and interacting with animals on farms, pet ownership is likewise considered a health benefit. The calming and de-stressing effect of human-animal interaction has been associated with positive effects on physiological risk

factors such as blood pressure in pet owners (Allen, Blascovic, & Mendes, 2002). Another study found that dog ownership is consistently associated with higher levels of walking and overall physical activity compared with those who do not own dogs (Christian et al., 2013). This is significant given that it is widely recognised that physical activity improves mental health (Harvey, Hotopf, Overland, & Mykletun, 2010; Ahn & Fedewa, 2011; Callaghan, 2004). Furthermore, results of a study at the University of Western Australia showed that pet owners had more friendly contact with their neighbours than non-pet owners (Wood, Giles-Corti, & Bulsara, 2005). Again, the benefits are important to note given that social contact is linked with enhanced mental health (Holt-Lunstad, Smith, & Layton, 2010; Ozbay et al., 2007). Even though the majority of emerging research literature in this area demonstrates positive effects on mental health as well as physical health, there are some studies which indicate that interaction with animals is not always beneficial (Straatman, Hanson, Endenburg, & Mol, 1997; Gillum & Obisesan, 2010). This reveals the emerging and developing nature of the research on this topic.

Conclusion

This review of the literature has shown that a large body of research indicates that interaction with animals can be beneficial to mental health and wellbeing as well as physical health. It was shown that interaction with animals can be beneficial in various settings and contexts including therapeutic interventions (Dell et al., 2011; Klontz et al., 2007; Yorke et al., 2008; Burgoyne et al., 2014), working with farm animals (Berget et al., 2011; Pedersen et al., 2012) or pet ownership (Wood et al., 2005; Allen et al., 2002). However, little is known about how and in what ways exactly benefits are gained from interaction with animals. Consequently, the research question posed here aims to provide some insight into the phenomenon of human animal interaction on mental health generally, and the specific factors that support mental health specifically.

Finally, the literature review reveals that the majority of research on human animal interaction is from the fields of psychology, psychiatry, and zoology, and although this is important, has located the phenomenon of the benefits to mental health in a

narrowly psychological frame. Although there is some awareness among social workers of animal assisted interventions and the role animals can play in helping people, this is as yet an under-developed area of social work research. For example the newsletter of the New South Wales branch of the Australia Association of Social Workers published an article about the use of horses in therapeutic courses (Carmichael, 2010); however, as far as I am aware, there has been very little if any contribution from social work in research into human animal interaction. By drawing on the view of participants around their experiences in reference to the WHO (2007) definition of mental health, this study will add to the current knowledge base by exploring in depth the ways in which interaction with animals can benefit mental health and wellbeing. The purpose of the following chapter is to explain the research design and approaches taken towards this aim.

Chapter 3 – Methodology

I had just finished first year Uni and I had these little patches during first year of Uni where I would get really depressed for a couple of days and then I'd come out of it and it seems odd to me now looking back that I didn't think 'hey that's weird'. (Anna)

Introduction

Chapter two demonstrated the existence of an emerging literature that shows that human animal interactions can be beneficial to mental health. It is argued that this is an emerging area of research and more research is needed to explore this phenomenon in order to understand more specifically how such benefits arise.

This chapter will cover the research design used to guide the inquiry and answer the research question. It will begin by explaining postpositivism—a truth and reality oriented framework—as the epistemology for this research. It will then explain transcendental phenomenology as described by Moustakas (1997) as the methodology chosen for this study. The common presumption that postpositivism and phenomenology are not compatible will be acknowledged and it will be shown that the two can be reconciled.

Furthermore, this chapter will discuss the World Health Organisation's [WHO] (2007) definition of mental health as the conceptual framework guiding the interview and analysis process. Moreover, specific research methods and techniques will be explained including sampling and recruitment. Some relevant details and background information about the participants will be presented and data collection and data analysis will be explained. Finally, the chapter will discuss ethics and risks to participants. The purpose of this chapter is to explain in detail both the thinking and the methods that were adopted in this research.

Research design

Epistemology

This research sits broadly within a research paradigm known as postpositivism. Postpositivism falls into a category of truth and reality oriented frameworks used to guide research. This paradigm assumes that, although one might not be able to completely understand it, a single reality or truth exists beyond ourselves, albeit differently experienced and understood (Creswell, 2013). Postpositivism was developed to address the limitations of positivism (Racher & Robinson, 2002). Unlike positivism, postpositivism recognises that complete objectivity by the researcher cannot be achieved and knowledge and understanding are intrinsically entrenched in culturally and historically specific paradigms. Under this view, knowledge is relative, not absolute (Patton, 2002). Therefore, postpositivists believe that although there is one reality, people will have different perspectives of it (Cresswell, 2013).

Postpositivism adopts some of the tenants of science suggesting that the researcher's personal views and bias need to be controlled as much as possible (Creswell, 2013). This is consistent with Moustakas (1994) phenomenology and the idea of bracketing out one's prior knowledge, personal experiences and beliefs. The research process is approached as a series of logically related steps with rigorous methods for data collection and analysis (Creswell, 2013). Hence, the methodology adopted in this research is phenomenology.

Methodology

Phenomenology focuses on people's individual experiences of phenomena. It aims to find a common meaning for a group of individuals of their lived experience and to describe the *essence* of the phenomenon (Crotty, 1998). An essence is "the most important part of something, usually the part that gives it its general character" (McMillan, 2014). In this sense, phenomenology lies on a continuum between

quantitative and qualitative research as it explores the lived experiences of phenomenon and objective experiences of something in common with other people. Phenomenology was chosen as the methodology for this study as it is suitable in meeting the study's aim to explore participant's experiences of the benefits of interaction with animals to mental health.

Phenomenology has drawn on the works of Edmund Husserl (1913) and others such as Martin Heidegger (1920) and Maurice Merleau-Ponty (1962) and more recently Clark Moustakas (1994) and Max Van Manen (1997). There are different philosophical perspectives embodied in phenomenology. However, they share some common ideas—they study the lived experiences of individuals, they agree that these experiences are conscious ones, and they aim to describe the essence of these experiences (Creswell, 2013).

Transcendental phenomenology

This study has applied transcendental phenomenology to the research design. Transcendental phenomenology aims to perceive everything freshly, uninfluenced by prior knowledge, scientific ideas and beliefs, or culture and customs (Moustakas, 1994).

According to Moustakas (1994), the key ideas in transcendental phenomenology are:

- *Epoche:* The word epoche originates from the Greek and means to refrain from judgement and to abstain from the ordinary way of perceiving things. The technique of epoche refers to a form of bracketing, whereby the researcher describes their own experience with the phenomenon to bracket out personal views and experiences before exploring experiences of the participants. In this sense, prior to the data analysis and writing process I wrote a reflection to outline and describe my thinking, experiences and views on the topic. This helped me to 'bracket' these views from the research process so that I could focus more directly on the participants experiences.

- *Consciousness*: Consciousness is directed towards an existent or non-existent object. There is no consciousness without an object. Consciousness is

intentional, it is represented in the mind. Meaning is created when what appears in consciousness is experienced in the world. The focus of this research is to explore the representations and descriptions participants held about the experience of interacting with animals.

- *Perception*: Perception is the primary source of knowledge in phenomenology, regardless of whether the perception is true or not. New perceptions can always add to knowledge regarding an object, and it is the participant's perceptions that are given importance and status in this research.

- *Intentional experience*: Every intentional experience suggests and describes something. Phenomenology turns to experiences to create meaning, such as the meaning associated with animals and how they might contribute to mental health and wellbeing.

- *Intersubjective validity*: As one comes to know someone or something through experiences validity is continually altered. This is why this kind of research is important to pursue so that the phenomenon of human and animal interaction and its benefit to mental health can be more clearly described and articulated.

- *Intuition*: Intuition is viewed as the beginning point in gaining knowledge of human experiences. In this sense, many people have an intuition that animals are important to human mental health, but the specific details of this may require examination and clarification.

These key ideas of transcendental phenomenology have been guiding principles in the data collection process of this study. Importantly, the framework by Moustakas (1994) has been central to the methods of data analysis, which will be described below in more detail.

Reconciling postpositivism and phenomenology

It has been suggested that postpositivism and phenomenology contradict each other in some aspects and phenomenology is often associated with a constructivist paradigm as it focuses on individuals' subjective lived experiences, which seems to be at odds with postpositivism, which takes an empirical approach and holds a belief in observables (Racher & Robinson, 2002). However, as explained in the previous sections, there are different philosophical traditions within phenomenology and the key ideas and assumptions of transcendental phenomenology—the methodology chosen for this study—is compatible with a postpositive paradigm. One of the very key ideas of transcendental phenomenology, as described above, is essence and although an essence is not generalisable from the sample to the population, the idea of the universality of an essence is consistent with the postpositivist epistemology (Benner, 1994). Furthermore, as previously explained, postpositivism recognises that complete objectivity by the researcher cannot be achieved (Patton, 2002). This is congruent with the concept of epoche or bracketing in transcendental phenomenology (Annells, 1999). Therefore, while this study does focus on the subjective experience of participants, it attempts to examine this experience in terms of its essence, and in doing so, I make steps to ensure that my experiences are bracketed from the analysis.

Conceptual Framework: The concept of mental health

As mentioned above, transcendental phenomenology was chosen to guide this research because it best fits the research question that aims to explore the shared experience of individuals of the benefits of interaction with animals. However, the methodology will incorporate a conceptual framework of mental health and wellbeing to guide the interview and analysis process. This is to make sure that the phenomenon being studied is conceptualised within a broad concept of mental health and wellbeing, and will therefore give some conceptual focus to the study. This concept is derived from the World Health Organisation's [WHO] (2007) definition of mental health, which is as follows:

> Mental health is not just the absence of mental disorder. It is defined as a state of *well-being* in which every individual *realizes his or her own potential*, can *cope with the normal stresses* of life, can *work productively* and fruitfully, and is able to *make a contribution* to her or his community. (WHO, 2007)

There are two reasons why the WHO (2007) definition of mental health has been incorporated in this study. First, it is influential in informing policy responses to promote mental health that take into account both social contextual and psychological elements of mental health. An example of this is the report *Promoting Mental Health: Concepts, Emerging Evidence, Practice,* which is a collaboration of WHO, Department of Mental Health and Substance Abuse, the Victorian Health Promotion Foundation and the University of Melbourne (2005) and is aimed to be used as a guiding tool by public officials and medical professionals in addressing and meeting the health needs of their societies. Second, the WHO definition's non-pathologising approach fits well with the purpose of this study, which is to explore the 'benefits' of human animal interaction as subjectively reported by participants. Expanding on the key points in this definition leads to five key concepts, as follows:

Wellbeing

There are many descriptions and definitions of wellbeing currently in use; however many of them are very broad and ambiguous (Forgeard, Jayawickreme, Kern, & Seligman, 2011). There are some common elements in descriptions of wellbeing including equilibrium, homeostasis, quality of life and flourishing (Dodge, Daly, Huyton & Sanders, 2012). Dodge, et al. (2012) defined wellbeing as the *balance point between an individual's psychological, social and physical resources and the challenges faced*. The definition by Dodge et al., (2012) will be used for the purpose of this research and has been adopted into the methods used to collect and analyse the data.

Realising one's own potential

Realising one's own potential or self-actualisation is important to mental health. Maslow (1943) discussed self-actualisation in his hierarchy of needs and suggested

that everyone has the need and desire to realise their full potential. As Salkind stated "What a person is gifted to do, that person must do in order to be happy, fulfilled, and actualized" (2008, p. 638). Maslow's theory of a hierarchy of needs has since been criticised for a number of reasons including a lack of empirical evidence (Wahba & Bridwell, 1976) and it has also been argued that it is ethnocentric and only applies to individualistic societies (Gambrel & Cianci, 2003). However, others such as Rogers (1961) similarly described self-actualisation as a natural human tendency and there is a general agreement that self-actualisation by achieving one's potential is a key motivating attribute for all humans (Wilcock, 2005; Ivtzan, Gardner, Bernard, Sekhon, & Hart, 2013). This notion of self-actualisation will be used as the theoretical concept underpinning the WHO notion of realising one's own potential.

Coping with stresses

Coping refers to people's responses to stressful situations or events. It is a complex process that is influenced by the environment—its demand and resources—as well as temperament and personality traits. Coping is linked to emotional self-regulation (Folkman & Moskowitz, 2004). Emotional regulation includes the conscious or unconscious, controlled or automatic processes by which individuals influence their emotions. Coping describes the conscious and controlled responses of a person to combat negative emotions or to stimulate positive emotions (Folkman & Moskowitz, 2004). Coping can be reactive, as an attempt to deal with a past or present stressful encounter, or anticipatory in order to manage one's response to an event that has not occurred yet. Coping can also be preventive to prepare for uncertain events (Lopez & Snyder, 2003).

Work productively

Employment has been linked to life satisfaction in the general population as well as in people with a long-term mental illness (Priebe, Huxley, Knight, & Evans, 1999). The workplace can promote connections to the wider social and economic world. It can provide opportunities for meaningful activity, satisfaction and accomplishment.

Loss of employment on the other hand has been linked to low self-esteem, mental health problems and substance abuse (Blustein, 2006). Wilcock (2005) suggests that to experience benefits to wellbeing and health, an activity or occupation must provide purpose, a context for self-esteem and socialisation. Further, it was shown that unpaid work carries some of the same benefits as paid work (Bannigan, Bryant, Fieldhouse, Creek, & Lougher, 2014). To what extent animal interaction contributes to connections to a wider social and economic world will be explored.

Making a contribution to community

There are different ways one can make a contribution to their community such as volunteering or providing emotional support to a neighbour or friend. Research has shown that volunteering improves psychological wellbeing and self-reported health benefits (Piliavin & Siegl, 2007). Brown, Nesse, Vinokur, and Smith (2003) found that giving social and emotional support was more beneficial to wellbeing and mortality than receiving it. Research has also revealed that that there is a positive correlation between altruistic behaviours and improved health and wellbeing in areas including social relationships, purpose in life, self-acceptance and physical health (Schwartz, Keyl, Marcum, & Bode, 2009). Furthermore, it has also been suggested that altruistic practices enhance longevity (Wink & Dillon, 2007). The idea that living an ethical life is good for one's health and wellbeing is supported by the works of Singer, (1990, 1995) who refutes the notion that humans are genetically driven to be selfish and claims that living ethically involves considering the welfare of all other beings including animals.

In summary, this conceptual framework developed from the WHO definition of mental health and wellbeing was used to guide the methodology, including the research methods, which will now be discussed.

Methods

Sampling

In his discussion of phenomenology, Moustakas (1994) does not suggest any explicit criteria for locating and selecting of research participants. To give direction to this research, participants were recruited according to the following criteria:

1. They regularly interact with animals – at least once a fortnight
2. They interact with animals in relation with an organisational context – for example volunteering for a wildlife rescue group
3. They identify as having or having had depression – either because they have been diagnosed or because they self-identify – and see themselves as making positive steps towards recovery.

The experience of depression was chosen as a criteria for participation in this study as it is one of the most common mental illnesses (AIHW, 2012) and to narrow the focus of the study. Depressive disorders are mood affective disorders. The *International Classification of Disease* [ICD-10] (World Health Organisation [WHO], 2012) differentiates between depressive episodes, recurrent depressive disorders, persistent mood affective disorders and other mood affective disorders. The depressive episodes range from mild to moderate to severe. Symptoms include depressed mood, loss of interest and enjoyment, sleep disturbances, fatigue, reduced concentration, low self-esteem, pessimistic outlook on the future, reduced appetite and ideas or acts of self-harm and suicide (WHO, 2012).

For the purpose of this study, people who had bipolar disorder were also included. This was because although bipolar includes repeated episodes of mania (elevation of mood and energy) it also is also characterised by episodes of depression (WHO, 2012). The *ICD-10* (WHO, 2012) was chosen over the *Diagnostic and Statistical Manual of Mental Disorders* [DSM-5] (American Psychiatric Association [APA], 2013) to guide the use of this definition, as the DSM-5 has been heavily criticised for a number of reasons. For example, in the development of the DSM-5 the

essential quality control step was cancelled due to a lack of time and a petition endorsed by more than 50 professional organisations for an open and independent review of its suggestions was declined by the American Psychiatric Association (Frances & Jones, 2014). Furthermore, it has been suggested that the DSM-5 aggravates the medicalisation of normal behaviour by its over-inclusiveness and lowered diagnostic thresholds (Frances & Jones, 2014).

The participation criteria of seeing oneself as making positive steps towards recovery was included to address and minimise potential risk for participants as will be explained in more detail later in this chapter. Considerable inconsistencies can be found in the literature regarding an operational definition of recovery from mental illness and different time spans ranging from two to 12 months are suggested from the experience of the last episode to when a person is recovered (Furukawa et al., 2008). However, the focus of this study was on the experience of the benefits of interaction with animals and not on the experience of depression. Hence, data regarding symptoms of depression and times when they were last experienced was not collected. However, for the purpose of this study participants were considered to make positive steps towards recovery if they—within the last four weeks—had not been hospitalised because of mental illness, had not attempted suicide or idealised suicide, had been able to perform normal daily tasks, and importantly, perceived themselves as making positive steps towards recovery.

Recruitment

Participants were recruited through emails[5] to organisations and programs that are selected recruitment sources[6]. A written statement[7] that explains the study and its purpose was provided as suggested by Moustakas (1994) and required by Edith Cowan University Research Ethics Committee. Emails were distributed to organisations that run programs or use animals in a structured and purposeful

[5] See appendix 4 for recruitment emails
[6] See appendix 3 for recruitment sources and appendix 8 for timeline for the study, including recruitment and data collection phase.
[7] See appendix 5 for information letter and appendix 6 for an example of a flyer.

manner as well as mental health support services. The table below shows the number of organisations contacted and the responses received.

Table 1: Recruitment of Participants

Organisations contacted	Organisation responded and distributed information letter and flyer to members/clients	Responses from potential participants	Participants recruited and interview successfully completed
Wildlife Rescue Organisation	Yes	2	1
Animal Fostering Program	Yes	2	1
Women's Residential Health Program	Yes	1	1
Counselling Service 1	No	0	0
Counselling Service 2	No	0	0

Participants

Three participants were recruited and successfully completed an interview. All participants in this study were female. This was not specifically intentional but because there were only female respondents. The participants were aged between 31 and 43 years with a mean age of 36.6 years. They had been involved in various animal related programs for eight years, five months and two months respectively. One participant was working full time as a nurse, one was studying part-time while volunteering and caring for her elderly mother, and one was in a full time residential health program. All participants had received a medical diagnosis by a doctor. One participant was diagnosed with major depression with aspects of anxiety and possibly bipolar over 20 years ago. Another was diagnosed with depression 10 years ago. The third participant was diagnosed 12 years ago with bipolar disorder, which was thought to be exacerbated by recreational drug use. All participants were taking prescription medication at the time of the data collection for this study. Pseudonyms

are used throughout the data analysis chapter in order to protect the identity of participants.

Data collection

Data was collected by way of in-depth face-to-face interviews as is typical with phenomenological research. The duration of the interviews ranged from 20 minutes to one hour, with the mean duration of 38 minutes. The interviews were audio recorded and transcribed by the researcher. An interview guide was prepared[8], although the interviews allowed for some deviation from the guide (Moustakas, 1994). Open-ended questions were asked, and I exercised care to avoid imposing themes on the participants. Instead, I allowed them to tell their experiences as suggested by Crotty (1998). Social conversation before the interview was used to foster a relaxing atmosphere (Moustakas, 1994). In preparation for the interviews, I followed the Epoche process[9] as described by Moustakas (1994).

Phenomenological data analysis

In keeping with the phenomenological research methodology, data was analysed using phenomenological analysis with the incorporation of concepts as developed from the WHO (2007) definition of mental health. Moustakas (1994) outlines specific steps that are taken in the data analysis process, these steps were followed for this study. Firstly, the data was horizonalised, which means that every statement or 'horizon' that is relevant to the topic was identified and seen as having equal worth and anything not relevant to the research question was deleted. By working with the transcripts, interview statements were loosely grouped into meaning clusters. At this stage of the analysis process the participants were given the opportunity to provide feedback and comment on a summary of the main topics in their interview. Two participants were contacted and emailed a summary; one

[8] Refer to appendix 2 for interview guide
[9] As mentioned earlier the epoche process entails the researcher describing their own experiences with the phenomenon to bracket out their views before exploring the experiences of others.

participant gave feedback. The third participant could not be contacted. Further, the interviews were compared and emerging themes were grouped and a separate document was created for each theme.

Moustakas (1994) suggests as the next step to remove reoccurring statements from the themes. This was followed, even though there was only a very small number of reoccurring statements in the transcripts. Next, a two column table was created for each theme or meaning cluster. In the first column textural descriptions of the themes were developed by describing exactly what the experience was. Data that illustrated the theme was listed as statements in the second column. In this process of developing textural descriptions some of the themes were re-grouped and merged and eventually eight themes that were indicative of the essence of the phenomenon of human animal interaction as reported by participants were identified. Subsequently, individual statements that were descriptive of each theme and how the phenomenon of each theme was experienced were developed and added to the tables.

Finally, I took all the distinctive statements of the experience of each theme and composed a unified statement of the essence of the experience (Moustakas, 1994). In reporting and representing the analysis, I have chosen to give a description of each theme supported with illustrative examples of participant quotes from the transcripts. Links from each of these themes are made to the WHO (2007) definition of mental health, and I refer to relevant literature to ground the analysis in further research. The purpose of this is to tie the analysis to accepted notions of mental health and other evidence that supports the use of animals in promoting mental health and wellbeing.

Ethics

This research adhered to the principles and standards outlined in the *National Statement on Ethical Conduct in Human Research* (National Health and Medical Research Council [NHMRC], Australian Research Council [ARC], Australian Vice-Chancellors' Committee [AVCC], 2013). A clearance from the Edith Cowan

University ethics committee was sought and obtained[10]. The ethical principles underpinning the design, execution and reporting of this research are as follows:

1. *Voluntary participation and informed consent*: Human research must be voluntary and the participants need to be provided with sufficient information of the research and the implications that participation will have so that they have an adequate understanding of it (NHMRC, ARC, & AVCC, 2013). Participation in the study was voluntary. The study was explained verbally to all potential participants and an information letter was provided. Further, potential participants had the opportunity to clarify any questions before making the decision to participate. Written consent was obtained. To ensure capacity to consent, participants were asked, after having read the information sheet, to verbally explain its content to the interviewer. This is a procedure often used to determine capacity to consent of participants with a mental illness (Dunn & Jeste, 2001).

2. *Confidentiality*: In any human research, privacy and confidentiality should be respected and agreements made with participants should be fulfilled (NHMRC, ARC, & AVCC, 2013). This research was no exception. All data collected during the period of this study was held in a secure location and was only accessible by the research team. No identifying information about participants was released or published, and as mentioned, pseudonyms are used in the following chapter.

Risks to participants

It was considered that there was the potential risk that participants could experience emotional discomfort during or after the interview. However, this was assessed as low risk and the probability of this occurring was deemed minimal. The interviews focused solely on the benefits of interaction with animals on the participants' mental health and wellbeing and no direct questions were asked about the experience of

[10] The ethics approval number is 11080

depression itself, for example. In case a participant would have indicated that they are upset or distressed by the interview, the interview would have been discontinued and the participant provided with contact details of support services[11]. However, this was unnecessary; no participant indicated that they were distressed by the interview. People with a severe mental illness were not recruited. To determine that the potential participant did not have a severe mental illness, a number of screening questions[12] were asked before the interview commenced and the consent sheet was subsequently signed.

Conclusion

This chapter has outlined the research design and methodology of this study. This research sits within the paradigm of postpositivism, a truth and reality oriented framework. The methodology adopted for this study is transcendental phenomenology which aims to perceive everything freshly and uninfluenced by prior knowledge, customs, culture and beliefs. To guide the interview and analysis process the methodology has incorporated a conceptual framework of mental health. The concepts derived from the WHO (2007) definition of mental health are: wellbeing, realising one's own potential, coping with stresses, working productively and contributing to one's community. Participants were recruited who regularly interact with animals within an organisational context and identify as having or had depression. Participants were recruited through emails to organisation and programs that were selected recruitment sources. Three female participants were recruited and successfully completed an interview. The participants were aged between 31 and 43 years and had been involved in the respective programs for eight years, five months and two months.

Data was collected in face to face in-depth interviews. The length of the interviews ranged from 20 minutes to one hour. The data was analysed using phenomenological analysis with the incorporation of concepts as developed from the WHO (2007) definition of mental health. The steps described by Moustakas (1994) for

[11] Refer to appendix 9 for a list of support services.
[12] Refer to appendix 1 for screening questions.

phenomenological data analysis were incorporated into the analysis and writing processes. This research adhered to the principles and standards outlined in the *National Statement on Ethical Conduct in Human Research* (NHMRC, ARC, AVCC, 2013) and a clearance from the Edith Cowan University ethics committee was sought and obtained. Voluntary participation and informed consent were ensured and confidentiality was kept. The risk of participants experiencing emotional discomfort was identified and assessed as low. No participant expressed emotional discomfort during an interview. A number of screening questions were developed to ensure no participant had a severe mental illness. The table below presents an overview of the research design.

Table 2: Research design

Element	Meaning	This study
Epistemology	Theory of knowledge	Postpositivism
Methodology	Design principles	Transcendental phenomenology
Conceptual framework	Main concepts	WHO (2007) definition of mental health: • Wellbeing • Realising one's own potential • Coping with stresses • Working productively • Contributing to one's community
Methods	Methods, techniques	• Recruitment: Emails to selected recruitment sources • Data collection: In-depth, face to face interviews • Data analysis: Phenomenological data analysis
Ethics	Ethical principles, responsibilities towards participants, stakeholders	• Voluntary participation & informed consent • Confidentiality • Risk to participants: emotional discomfort. Assessed as minimal. • Screening questions to ensure no participant had a severe mental illness.

Chapter 4: Results and discussion

> *Basically you do whatever is needed but you know that involves the basics of cleaning up and feeding which would be fairly obvious. But also just keeping an eye on animals if you're not actively involved in treatment of them. (Anna)*

Introduction

The purpose of this chapter is to present the results of the study as they were derived from the phenomenological data analysis explained in chapter three. From three verbatim transcripts eight themes were identified that were clear examples of the essence of the phenomenon being studied. These eight themes are conceptualised as the benefits of interaction with animals. They are:

- Company and comfort
- Social interaction, social skills and belonging
- Structure and balance
- Helping
- Learning and developing life skills
- Fun and enjoyment
- Sense of achievement
- Passionate caring

Some of the themes are benefits that were experienced while directly interacting with the animals and others were indirect benefits that were derived from participating in a program that involves animals. That is to say, there were latent benefits to mental health and well-being that were derived from the social aspects of interacting with animals. Links to the WHO (2007) definition of mental health and to relevant literature are also made. I begin with the most significant theme in the data, company and comfort.

Themes

Company and comfort

A major theme that emerged from the interviews is that the company of animals was enjoyed immensely by the participants. It was described that having animals around combats feelings of loneliness as animals are always there, wanting pats, wanting to be fed or content to spend time with people. Furthermore, the company of animals was experienced as comforting, as one participant explained:

> *They're sort of comforting. When I had a cat that would sit on your lap or sleep on your bed when they're sort of happy and they purr and that. I just found there is something about that, I didn't feel alone because they're comfort and company. (Isabella)*

This is important to note especially as loneliness has been linked to depression (Russel, et al., 1984) and low self-esteem (Kong & You, 2011). Another woman stated:

> *Sometimes it gives me a feel-good feeling, being around them. They are just really good company. (Andrea)*

Furthermore, participants described animals as being non-judgemental—unlike people—and not demanding, but easy to please. For example, participants thought that animals have simple needs such as food, shelter, rest, that can easily be met. Being able to meet these needs made participants feel that they are doing something worthwhile and invoked a sense of achievement and self-efficacy. Moreover, it was perceived that animals give unconditional love. The connection and bonds that participants had with the animals were experienced as comforting, gratifying and worthwhile. It was also stated that animals seem to be able to sense human's feelings and moods:

> *Whether animals can empathise I don't know but they seem to be able to - and they just sit there and want time with you and that's all. They're not overly demanding; they just want to be there. (Andrea)*

These findings lend support to the social support hypothesis, which proposes that animals are a form of social support as they are non-judgemental and love their owners unconditionally (Sable, 1995).

Social interaction, social skills and belonging

Participation in the animal programs benefited the women in regards to social interaction and social skills more broadly. It was stated that animals encourage social interaction; for example, when taking a foster dog for a walk to the park it is easy to start a conversation with other people who are also walking their dogs. Furthermore, by attending events such as dog shows people who have common interests can meet and socialise and thereby extend their sense of social connection. As before, these findings lend support to the social support hypothesis discussed in chapter one, which suggests that caring for or interacting with animals may facilitate interaction and connections among people (Sable, 1995).

In this study, it was reported that volunteering with animals fostered the development of social skills as the volunteers often work in teams. One participant explained:

> *The surprising thing to me was I've got more social skills than I thought I had. I didn't realise that the interpersonal kind of relationship … one of the reasons I thought about coming here for many years and didn't - I just put it off and off and off - was because I was really scared about the people. I was scared about how I would cope and whether I would just… I don't know - you know all these new people to deal with it and I just didn't know how that was gonna work. So I was quite scared. In the end I just went for it. I thought 'well I just have to give it a go' and I did and it's worked out really well and over the years it's sort of got better and better. (Anna)*

Finally taking up the courage to visit the shelter and then get involved in the program with the animals has not only helped this participant to realise that she actually has more social skills, but it has also helped improve social skills and increased her confidence in social situations. In this sense, working in and belonging to a team was experienced as a benefit:

It's good to feel part of a team you know (Anna).

Being part of a team and knowing that other team members can be relied upon was described as a positive experience, as well as the socialising with other volunteers during break times. It is widely agreed that belonging and connectedness are important to mental health and wellbeing (Baumeister & Leary, 1995; Kawachi & Berkma, 2001; Shochet, Dadds, Ham, & Montague, 2006). As discussed in chapter three, part of keeping mentally healthy involves contributing to one's community (Piliavin & Siegl, 2007). In order to do this, one needs to have a sense of belonging and connectedness to a community. The results from this study show how animal interaction can act as the vehicle through which social connection may be enhanced or increased.

Structure and balance

Interaction with animals and involvement in the animal programs gave the participants a sense of structure and balance, which were seen as important elements to managing mental health. As stated earlier in chapter three, balance and homeostasis are important to mental health and wellbeing (Dodge, et al. 2012). Committing to a set time each week to go and volunteer gives structure and routine to one's life, as does having an animal around that needs to be fed and taken care of—no matter how one is feeling. One participant explained:

It forces you to get up and you have to feed them, you have to look after them and tidy up after them. So I think if I didn't have them and was going through one of the phases I was - I would probably just not get out of bed for 24 hours or whatever. (Andrea)

Furthermore, it was stated that caring for animals provided participants with a sense of balance, whereas other areas of their life such as work or study pose different challenges and roles. One participant stated:

A few people here are studying vet nurse and vet science and things like that. And I kind of feel like a bit of a … you know ah well I'm studying French and arts ha-ha! But to be honest that's what I need to do. I need to have that mixture. (Anna)

It was emphasised by the participants that although the animals are an important part of their life that they would not want to miss, they are not everything and the importance of interacting with friends and pursuing other hobbies and interests was stressed. Structure, routine and balance are especially important for people who are experiencing depression and are factors that aid recovery (Martell, Dimidjian, & Herman-Dunn, 2010).

Helping

Helping was an important theme throughout the interviews. This included helping the animals, but also helping people. Not only did participants enjoy the actual work and interaction with the animals but also of importance was the feeling of being useful and being a good person. Participants saved dogs from being euthanised, cared for sheep and chickens, and helped native animals by giving them what they needed to be able to be recover and eventually be released into the wild again. This participant described a highlight of her work with native animals:

> *I've released a few animals that we have rehabilitated. On the way home I've gone to the nearest bit of bushland from where they were found and opened up the box and let them go and that's just, that's the best! You know getting them back out there, healthy and knowing that if they hadn't come to us, they wouldn't have - they'd be dead now. And so it's just really nice, it's really lovely. Yeh that's the best! (Anna)*

As a further example, by fostering dogs a participant helped save dogs from being euthanised but also helped other foster carers by providing respite to them by looking after their foster dog for a weekend. This participant explained:

> *I enjoy it but I also like the idea that I've maybe helped one more animal not be euthanised or even temporarily have been able to give the other people a bit of a rest from doing it as well. (Andrea)*

As discussed in chapter three, making a contribution to one's community is beneficial for one's psychological wellbeing (Piliavin & Siegl, 2007; Brown, Nesse, Vinokur, & Smith, 2003). Furthermore, as discussed in chapter three, it has been

shown that there is a positive correlation between altruistic behaviours and improved health outcomes in areas including social relationships, purpose in life and self-acceptance (Schwartz, et al., 2009) and it has been suggested that altruistic practices enhance longevity (Wink & Dillon, 2007).

Learning and developing life skills

Learning and being challenged is another key theme and was described as an important and enjoyable aspect of the interaction and work with the animals. Anna stated:

> *I need to have a sense of constantly learning, constantly using my skills and developing new ones. (Anna)*

The women discussed different ways in which they learned. They learned through experience by caring for the animals, they learned from supervisors and they attended handling courses. Putting newly learned skills into practice and knowing that a task had been done well was experienced as satisfying. As previously mentioned in chapter three, achieving one's potential is important to mental health (Rogers, 1961; Wilcock, 2005, Ivtzan et al., 2013). Participants also stated that caring for animals can involve a level of stress. However, this is not necessarily a negative aspect. Being able to cope with stresses is considered essential to mental health (WHO, 2012) and learning life skills such as decision making, problem solving, creative and critical thinking, helps people to be able to deal effectively with life's challenges and demands (Sahu & Gupta, 2013).

Moreover, animals are living beings and with that there are always novel and interesting experiences to be had, which was perceived as another positive aspect of interaction with animals. This participant explained:

> *There is always something new happening and that's one of the really good things about working with animals. Sometimes you just feel like 'ah good I've just been feeding possums and you know cleaning up after pooey ducks and whatever for weeks and weeks and nothing's happening'. But then something interesting -*

you know it's always - there's always slight differences and every week - something might come in and we're just in a quietish period at the moment before babies start. (Anna)

As explained by Reinecke and Davison (2002), engaging in interesting and pleasurable activities distracts from focusing on negative thoughts and aids recovery from depression. Furthermore, learning how to adapt and being able rise to new challenges in the context of the animal programs by using life skills such as problem solving and critical thinking will help participants to face challenges and transfer these skills into other areas of their lives (Sahu & Gupta, 2013).

Sense of achievement and role in life

Experiencing a sense of achievement and having a role in life is one more theme that was discussed in the interviews. While working in the animal programs participants experienced a sense of achievement when they realised they had done something well and were good at it. This occurred while working with the animals directly as this woman described:

I did find when we rounded up the sheep – like I'd never done it before in my life- but I knew what to do. To me it was just sort of common sense, but then there were other girls that were doing it and they were hopeless at it! And like they were – if I hadn't sort of you know - we had to sort of yell at them 'come on move in cos they're gonna run off, they're gonna scatter'. And they just sort of stand there clueless. But I suppose like using … like figuring out that you're good at something was good! (Isabella)

A sense of achievement was experienced while working with other team members and being entrusted with the orientation and induction of new volunteers and being able to do that successfully:

I'm able to present myself to make them feel I'm comfortable with them and I'm happy to know them and things like that. So it's quite good. It gives me a real sense of achievement as well that I didn't expect. So yeh I was surprised. (Anna)

This again can be linked to achieving ones potential (Rogers, 1961; Wilcock, 2005, Ivtzan et al., 2013) and working productively (Priebe et al., 1999; Bannigan et al., 2014) as discussed in chapter three. As discussed in chapter three, this is considered by the World Health Organisation (2007) to be an important requisite for mental health. Moreover, it has been found that self-efficacy and happiness are positively and significantly correlated (Hunagund & Hangal, 2014).

Although this was not across all interviews it was pointed out that volunteering with animals can give a person a role they can fulfil:

> *It gives me a kind of a role in life that people can sort of get their heads around. (Anna)*

As discussed earlier in chapter three being able to make a contribution to one's community is important for mental health and wellbeing (Piliavin & Siegl, 2007; Brown et al., 2003) as is being able to work productively (Priebe et al., 1999). Yet, the capacity to do so and to work full-time might be limited when someone experiences depression and as mentioned loss of employment has been linked to low self-esteem and mental health issues (Blustein, 2006). However, it has also been shown that unpaid work carries some of the same benefits as paid work (Bannigan et al., 2014). Being able to volunteer and care for animals not only enables the person to work productively but it also gives them a role and occupation that other people can understand and relate to.

Fun and enjoyment

The fun and enjoyment that participants experienced while interacting and working with animals was expressed in all interviews. Fun and enjoyment were experienced while working directly with the animals—for example rounding up sheep, playing with a puppy or feeding chickens and walking dogs. This participant described the first time she had helped rounding up sheep:

> *But with the sheep that we were rounding up - it was quite funny as well rounding them up because they're just quite funny to watch -*

like some of them would get freaked out and they would do these massive jumps and then the other ones would follow it and some of them would escape the pack and go off another way. Yeh it was just kind of fun. I really liked it -I could see myself doing more. (Isabella)

Laughter has been shown to hold many benefits in promoting mental health. Laughter can reduce stress, tension and anxiety, and it counteracts symptoms of depression, by elevating mood and self-esteem, by increasing energy, and by enhancing memory (Mora-Ripoll, 2010). Moreover, laughter has been linked to increased abilities in problem solving and creative thinking, and improvements in interpersonal interactions and relationships and it also fosters the building of group identity and cohesiveness (Mora-Ripoll, 2010). For one woman who was involved in the animal program as part of a residential program it came as a surprise that she enjoyed interacting and working with the animals:

I would never have thought that I would like to work with sheep but after doing that I thought it would be fun. (Isabella)

It was also expressed that not only did the animals make the participants smile and happy, but also passer-by's:

I think ultimately they do make you a lot happier. And I see - even if you take them for a walk down the street you see people that walk past and I don't - I have never noticed anyone - maybe one or two people that haven't actually - you know - that haven't smiled at them or whatever. So it seems to be like a carry on effect. (Andrea)

Moreover, working with other team members was also experienced as fun and pleasurable. Team work was enjoyed especially if the team was strong and members were able to rely on each other. It was mentioned that the tea break provided a welcome opportunity to socialise. This participant described it as follows:

We've got a lot of volunteers on a Saturday afternoon so we don't have to rush around too much like lunatics and we can have quite a nice tea break and sit around and giggle. (Anna)

However, it was noted that this was not always the case as the teams changed from time to time and not always worked together that well. Nonetheless, working in a team was experienced as a positive part of working with animals. Increasing activity

levels and including more pleasurable activities in a daily and weekly schedule has shown to be effective in treating depression (Reinecke & Davison, 2002).

Passionate caring

Another important theme that was mentioned by participants was that they felt passionate and cared about animals and their welfare. The participants love for animals was emphasised in all interviews and was named as a key motivator for interacting and volunteering with animals. Although there are many worthy causes that they could have got involved in, the women chose to spend their time caring for animals as that was what they felt most passionate about:

> *My mum always says 'why don't you do something about the native bushland instead of the native animals' and I'm going 'well that's fine, you're really passionate about the native bushland. I love the native bushland as well but my real passion is animals'. (Anna)*
>
> *And she goes 'why don't you go and weed this bush reserve?' It's a really valid thing for someone to do but not for me! (Anna)*

Another participant stated:

> *I love animals, and the more I can help the better. (Andrea)*

It was acknowledged that caring for animals includes some less enjoyable aspects such as a large amount of cleaning up. The women stated that while interacting with animals, they had been pooed on, scratched and bitten and also had some of their belongings destroyed. One woman explained:

> *You feed them you look after them and they bite you and they scratch you and they poo on you. (Anna)*
>
> *You're doing what's good for them but they don't understand that. And they may not like what you're doing for them. (Anna)*

It was also mentioned that a disadvantage of having animals around is that there is not much down-time to be had. Even though the women acknowledged that there are aspects of interacting with animals and caring for them that are not particularly

enjoyable, it was all seen as part of it and participants stressed that they would not want to miss this important part of their lives. It was seen as worth it and the benefits were described as outweighing by far any negative experiences. The theme of passion stood out as one of the reasons interacting and caring for animals was experienced as so rewarding. This theme of passionate caring can again be linked to every human's inclination to work towards self-actualisation (Rogers, 1961; Wilcock, 2005, Ivtzan et al., 2013). Furthermore, depression is often characterised by inactivity and disinterest (Mor & Haran, 2009). However, by participating in activities and helping in an area that one is passionate, negative feelings and thoughts can be combated.

Conclusion

The findings of this research show that there are many direct as well as indirect benefits of human animal interaction to mental health and wellbeing.

The results from this study show how animal interaction can act as the vehicle through which social connection may also be enhanced or increased inasmuch as participants reported benefits from the interactions with animals themselves. Overall, the findings lend support to the social support hypothesis that states that animals are a social support themselves as well as encouraging social interaction among people. The results of this study show how benefits to mental health may be achieved by interacting with animals, and these benefits align with much of the WHO definition of mental health. Consequently, interaction with animals can provide a non-medical social and holistic way of thinking about improving mental health.

Table three on the following page presents the eight themes and the direct and indirect benefits that were experienced.

Table 3: Themes and benefits

Themes	Direct benefits	Indirect benefits
Company and comfort	• Company of animals is enjoyable. • It combats feelings of loneliness. • It is comforting. • Animals are non-judgemental and easy to please.	
Social interaction and skills	• Animals encourage social interaction among people.	• Working in a team helps develop social skills. • Opens avenues to socialise (e.g. attending animal shows and events).
Structure and balance	• Structure and routine as animals need to be fed and cared for no matter how one is feeling. • Participating in animal programs gives balance to other activities and responsibilities.	• Structure and routine by committing to volunteering once a week.
Helping	• Helping animals is satisfying.	• Helping people (by taking care of their animals for a weekend).
Learning and achieving ones potential	• Learning from interacting with animals.	• Learning from supervisors and attending handling courses.
Fun and enjoyment	• Experienced while interacting with the animals.	• Fun and laughter while working and socialising with team members.
Sense of achievement	• While interacting with animals.	• While working in a team and taking on responsibility to induct new volunteers.
Passionate caring	• Contributing in an area that one is passionate about.	

Chapter 6 – Conclusion

They're a huge part of my life and I take them with me all the time. If I go to friends' houses and they have dogs I take them with me or I stay home with them - but I don't want them to be the be all and end all of everything. (Andrea)

Introduction

This concluding chapter will present a summary of findings and briefly outline the eight themes that were identified. Furthermore, implications for practice will be discussed and a number of recommendations made regarding the ways in which animal assisted interventions could be implemented based on the findings of this research. The limitations of this study will be discussed and it will be explained how they were minimised. Moreover, the strengths of the study, which lie primarily in its methodological approach, will be stated. A number of recommendations for future research will be made. The chapter will conclude with a final reflection.

Summary of findings

This study aimed to answer the question: *In what ways do human animal interactions benefit mental health?* The findings show that there are direct and indirect benefits of interaction with animals to mental health in eight distinct areas. The company of animals was enjoyed by participants and experienced as comforting and combating feelings of loneliness. Furthermore, animals encouraged social interaction and working in teams to care for animals fostered a sense of belonging and helped participants develop more social skills. Moreover, structure, routine and balance were described as benefits derived from interacting and volunteering with animals. Helping was another key theme, it was experienced as satisfying and rewarding to be able to meet the animal's needs. Continually learning and developing new skills by participating in the animal programs was another benefit described by the women in this study. Furthermore, the participants explained how a sense of achievement, fun and enjoyment was experienced while interacting with

animals and working in volunteer teams. Lastly all participants felt passionate about animals and their welfare and stated that this was the main motivator for participating in the animal programs.

Implications for practice

A number of recommendations can be made based on the findings of this study. Incorporating animals in residential or ambulant mental health support programs and involving teams of clients in the care of the animals would be an excellent way to foster the development of social skills, confidence and other life skills, which all can be transferred into other areas and contexts of their lives. In particular, practitioners could draw specifically on the findings of this study to underpin such programs more purposefully around the direct and indirect benefits reported here. Moreover, keeping animals on the premises of residential programs and enabling clients to interact with them could provide clients with comfort and company. Furthermore, clients who are interested in animals and their welfare could be encouraged to become involved in a volunteer program as part of the management of their mental health and potential benefits could be explained; for example it can help as it gives structure and purpose and is an enjoyable activity. In this sense, practitioners should be clear when communicating the rationale for being involved with animals and the possible benefits of such involvement.

Some of the same benefits were experienced by the participants of this study who volunteered and the participant who interacted with animals in the context of a residential health program. It should be stated here, however, that it would be important to respect a client's self determination not to engage in any kind of animal assisted intervention, partly because as reported in this study one of the key motivators and reasons why participants benefited from the interaction with the animals was that they loved animals and were passionate about their wellbeing. Thus, there is an intrinsic desire to work with animals that needs to be factored into decisions around the appropriateness of deliberate use of animals in a mental health intervention plan or program.

Limitations

As with all research there are some limitations to this study. For one the data is not generalisable beyond the group from which it was collected. Further, there is possible bias as some of the participants were already involved in animal rescue groups and may therefore hold favourable views about the role animals play in their lives and wellbeing. However an effort was made to recruit at least one participant from a program that is not focused on animal rescue. Still, another possible limitation is that the quality of data collected depends largely on the participant's interest in the topic and ability to articulate their experiences.

To optimise the quality of data collected I asked clarifying questions where necessary, used prompts to encourage the participant to give longer responses and I reflected on the process after each interview. Moreover, the participants in this study did not identify as having a severe or disabling mental illness, and so the relevance and appropriateness of animal interaction in this area is outside the scope of this study. That is to say, the participants in this study saw themselves as making positive steps towards recovery and as being able to manage their mental health well. It can be concluded that the same benefits described by the participants of this study might not be gained by people who are experiencing more severe mental illness; however, this would be an area worth exploring.

Lastly, it is important to mention that it can be assumed that some of the benefits are associated with the particular type and character of an animal and this might not be experienced with other species of animals. However, it is beyond the scope of this study to examine this variable. Yet, this would be another important point to explore especially in relation to the themes identified in this study.

Strengths

A major strength of this study is that it has explored the phenomenon of benefits of interaction with animals to mental health broadly, in depth, and with attention to its complexity. By doing so it has improved understanding of how exactly benefits are

experienced. This is different to the approach taken by other studies such as Braun et al., (2009) and Trotter et al., (2008) who measured the effectiveness of animal assisted interventions but did not focus on how exactly benefits were gained. Drawing on the findings of this study enables animal assisted interventions to be designed more purposefully around the direct and indirect benefits described.

Furthermore, while the study was designed around the assumption that there are benefits to interaction with animals, the data collection and analysis process of transcendental phenomenology (including bracketing) was strictly followed, which aimed towards a level of objectivity in the collection and reporting of the data. Moreover, the approach of this study is unique in that it incorporated a widely used notion of wellbeing and mental health into the framework and analysis, thus grounding the findings in ways relevant to policy and practice. Lastly, as discussed earlier in chapter two, most of the research in the area of human animal interaction so far has come from the disciplines of psychology, the medical sciences, and zoology. Research into human animal interaction is yet to ground its analysis in broader social understandings of mental health and wellbeing, which was the approach taken by this study.

Recommendations for further research – way forward

The majority of studies in the field of anthrozoology research are qualitative with small samples. There is a dearth of quantitative and experimental studies and therefore it would be helpful to explore the themes identified in this research so as to explore the general applications to larger populations. Moreover, a focus that is worth examining in more detail is the influence of gender on interaction with animals and the benefits experienced. All participants in this research were female. A number of questions arise from this: Why were there only female respondents? Was it just a coincidence or are more women involved in animal welfare programs? Are the same benefits from interaction with animals to mental health experienced by men and women equally? Furthermore, not only were the participants all female, they were also relatively close in age, which is another factor worth exploring to

gain more understanding of the phenomenon and to be able to tailor interventions to different age groups. Lastly, it would be worth to investigate further how the benefits described by participants in this study are experienced when interacting with different kinds of animals.

Final reflection

The benefits of interaction with animals are increasingly appreciated and animal assisted interventions are gaining recognition and are implemented in different contexts. A good example of this is Bunbury Senior High School which in May 2014 adopted a companion dog that is used to support students who are identified as needing emotional support. Students are able to spend one on one time with the dog, groom and care for him and take him for walks (Asher, 2014). This shows the ways that animals are increasingly being incorporated into practice, and supports the argument for continued research in this area.

The person in environment perspective is a vital element of social work (Kemp et al., 1997) and as argued by Green and McDermont (2010) social workers need to work towards affecting the settings and circumstances that sustain conditions necessary to enhancing and maintain human life and wellbeing. Animals are part of the environments of many people and it is important for the social work profession to consider the positive effects they can have on people's health and wellbeing and how these can be increased.

I would like to conclude this thesis with a quote from one of the participants of this study who explained to me why volunteering with animals is so important to her. This quote sums up very well the central argument of this study, which is that animals can play an important role in improving human mental health:

> *There's so many things that it nourishes you know. It nourishes your feeling of being a good person, it nourishes your feeling of being useful, it nourishes the fact that you love animals and that you're able to help them and it gives you structure and it gives you meaning. So this is - you can't put a price on it - it is amazing! (Anna)*

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Appendix 1: Screening questions

Have you been hospitalised because of a mental illness in the last four weeks?

No Yes

Have you attempted suicide or idealised suicide in the last four weeks?

No Yes

Within the last 4 weeks have you been substantially unable to perform normal daily routines due to mental illness?

No Yes

Appendix 2: Interview guidelines

Preliminary details

Date: _____ Location: _____

Interview commenced: _____ Interview closed: _____

Researcher: _____

Name of participant: _____

Age: _____ Gender: _____

Name of program: _____

Length of involvement: _____

Time spent each week: _____

Involvement/activities in program:

_____

_____

_____

Interview questions

Background information

When did you begin your involvement in this program?

What do you enjoy most about your involvement with the animals in the …… program?

Wellbeing

Can you tell me a bit about why you like spending time with the animals? What do you get out of it?

What do you enjoy most about volunteering/participating in the ….. program?

In what ways does your involvement with animals contribute to your sense of wellbeing? Please describe.

Potential

Does/how does volunteering/participating in the program help you gain new skills? Improve skills?

Does your interaction with animals contribute to your feeling of achievement? In what ways, please describe?

Coping

Do you think that interacting with animals improves or enhances your capacity to cope with other aspects of your life? How, and in what ways?

Work productively

How does your participation in …… program has an effect on other areas of your life? E.g. work, study?

Contribution to community

You volunteer your time to care for rescue animals, why did you first get involved with this program?

Appendix 3: confidential information removed

Appendix 4: Recruitment emails

Email to recruitment sources – Animal Programs

Subject:

Animal interaction and mental health study – Edith Cowan University

Text:

Dear Sir/Madam

I am writing to you regarding a study that is currently being conducted at Edith Cowan University on the topic of interaction with animals and benefits to mental health.

We are interested to talk to people that regularly interact with animals and have depression or have had depression in the past two years and see themselves as making steps towards recovery.

Please find attached an information letter and flyer with more details about the project and how to get involved.

If your organisation is interested to support this project we would like you to email all of your members that are actively involved in the [insert name of program] and directly care for or interact with the animals with the attachments and invite them to make contact with Jasmin.

I look forward to hearing from you.

Yours sincerely, Jasmin Jau

Email to recruitment sources – Mental health Services

Subject:

Animal interaction and mental health study – Edith Cowan University

Text:

Dear Sir/Madam

I am writing to you regarding a study that is currently being conducted at Edith Cowan University on the topic of interaction with animals and benefits to mental health.

We are interested to talk to people that regularly interact with animals (for example volunteering for an animal shelter) and have depression or have had depression in the past two years and see themselves as making steps towards recovery.

Please find attached an information letter and flyer with more details about the project and how to get involved.

If your organisation is interested to support this project we would like to ask you to distribute the attachments to your clients and invite them to make contact with Jasmin.

I look forward to hearing from you.

Yours sincerely, Jasmin Jau

Appendix 4: Information Letter

AUSTRALIA ECU EDITH COWAN UNIVERSITY

SOUTH WEST CAMPUS
585 Robertson Drive, Bunbury
Western Australia 6230
☎ 134 328
www.ecu.edu.au
ABN 54 361 485 361 CRICOS IPC 00279B

Participant information letter

Name of project: Human-animal interaction and mental health

Overview
This study explores the ways in which human animal interaction benefits mental health. The study is conducted within the requirements of Bachelor of Social Work Honours course at Edith Cowan University.

Description of the research project
The study aims to explore in what ways interaction with animals can benefit mental health. To achieve this, 30-45 minute interviews will be conducted with participants who regularly interact with animals (for example volunteering for an animal shelter or rescue program) and who identify as having or having had depression in the last two years and see themselves as making positive steps towards recovery.

Confidentiality and security of data
All interviews will be audio-taped and transcribed. All data will be held in a secure location and will only be accessible by the research team (Jasmin Jau – Honours student and David Hodgson - Supervisor). All data will be secured in order to protect the privacy of participants. No identifying information about participants will be released or published.

Risks
We do not anticipate any potential major discomfort or risks associated with participation in this research.

Voluntary participation and withdrawal
Participation in this research is voluntary. Participants may withdraw at any time without explanation and without penalty or disadvantage.

Results of the research study
At the conclusion of the research results of the study will be made available to participants on request in a report summary. Results will be further published in an Honours thesis.

Questions
Please feel free to ask us any questions regarding your involvement in this project.
We can be contacted at Edith Cowan University:

Jasmin Jau (Honours student)	**David Hodgson (Supervisor)**
0435866279	**(08) 97807731**
jjau@our.ecu.edu.au	d.hodgson@ecu.edu.au

Or, if you would like to speak to someone who is independent of the research project then you can contact the:

Research Ethics Officer
Edith Cowan University
270 Joondalup Drive
JOONDALUP WA 6027
Phone: 6304 2170
Email: research.ethics@ecu.edu.au

I would like to participate, what do I do now?
If you would like to participate please contact Jasmin to discuss your participation and to arrange a time for the interview.

This research project has been approved by the ECU Human Research Ethics Committee, project number: 11080

Yours sincerely,

Jasmin Jau (Honours student) David Hodgson (Supervisor)

Appendix 5: Example of flyer

Be part of exciting research that explores the ways animals can benefit mental health!

See attached information letter and contact Jasmin Jau for further details:
0435 866 279

Appendix 6: Examples of animal assisted activities and therapy programs in Australia

Horse Vision in Busselton

Equine assisted learning workshop and programs

Website: http://www.horsevision.com.au/horsevision.com.au/Welcome_to_Horse_Vision.html

Equine Psychotherapy Australia in Victoria

Equine Assisted Psychotherapy & Learning Sessions/ Programs

Website: http://www.equinepsychotherapy.net.au/files/location.html

Delta Society

Therapy dogs visit hospitals and care facilities

Website: http://www.deltasociety.com.au/pages/about-us.html

Greyhounds in Prison

In Hakea prison greyhounds are trained by prisoners to help rehabilitate and prepare prisoners for employment and life after prison.

Hakea Prison Report: http://public-policy.unimelb.edu.au/sites/default/files/public/CASEC%20Best%20Practice%20Recommendation%20Report%20130612.pdf

Appendix 7: Timeline

Timeline							
April 28	**May 9**	**May 23**	**June 13**	**June 20-July3**	**July 7 –Oct 10**	**Oct 10 – Nov 15**	**Fri Nov 15**
Submit proposal	Proposal presentation	Submit ethics application	Ethics approval	Data collection and transcribing	Data analysis	Thesis writing	Submit thesis
					Practicum	Editing, redrafting	
					Write data chapter		

Appendix 8: List of support services

Lifeline

Lifeline is a 24/7 crisis support service. You can call lifeline to talk to someone or you can go online and chat.

Phone: 13 11 14

Online chat: http://www.lifeline.org.au/Get-Help/

Beyond blue

Beyond blue is also a crisis support service. You can call 24/7 or chat online

Phone: 1300 22 4636

Online chat 3pm to 12am (AEST) 7 days a week:
http://www.beyondblue.org.au/get-support/get-immediate-support

Bunbury Mental Health Service

Bunbury mental health services offer counselling, inpatient support, rehabilitation, suicide prevention/intervention and triage.

Contact information

Location: South West Health Campus, Robertson Drive, Bunbury WA 6230

Phone: 08 9722 1300

Fax: 08 9721 7075

Perth: Bentley Mental Health Program

Acute adult and community mental health services.

Contact information:

Location: Mills Street, Bentley WA 6102

Phone: (08) 9334 3666

Fax: (08) 9334 3711